

4 B34

Access DB#

6078

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Heleah Egan Examiner #: 77000 Date: 5/17/02
 Art Unit: 1212 Phone Number 301/306-5701 Serial Number: 09/986/515
 Mail Box and Bldg/Room Location: CPS 4B34 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Blocked macrocyclics

Inventors (please provide full names): Cruise et al.

Earliest Priority Filing Date: 8/97

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please search for
Formula (1) in claim

1 where Y is as defined
in claim 6.

The basic structure is
$$3(X_3Si)-G-S-Y$$

Y can be
-C-O-R
but cannot be
-C-R

(Feel free to call for questions) Thanks

STAFF USE ONLY

Searcher: K. Fuller

Searcher Phone #: _____

Searcher Location: _____

Date Searcher Picked Up: _____

Date Completed: 5/24/02

Searcher Prep & Review Time: 20

Clerical Prep Time: _____

Online Time: 48

Type of Search

NA Sequence (#) _____

AA Sequence (#) _____

Structure (#) 2

Bibliographic _____

Litigation _____

Fulltext _____

Patent Family _____

Other _____

Vendors and cost where applicable

STN ✓

Dialog _____

Questel/Orbit _____

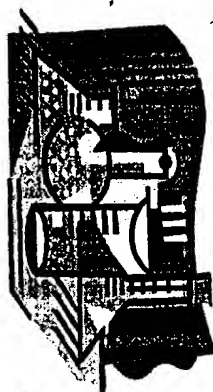
Dr.Link _____

Lexis/Nexis _____

Sequence Systems _____

WWW/Internet _____

Other (specify) _____



EIC 1700 / LUTRELLE F. PARKER LAW LIBRARY

Scientific and Technical Information Center



Search Results Feedback Form

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact the searcher whose name is circled below.

[Kathleen Fuller 308-4290] Eric Linnell 308-4143 John Calve 308-4139
All searchers are located in the library in CP3/4 3D62

Search Results

Feedback Form (Optional)



Scientific & Technical Information Center

The search results generated for your recent request are attached. If you have any questions or comments (compliments or complaints) about the scope or the results of the search, please contact *the EIC searcher* who conducted the search or contact:

Kathleen Fuller, Team Leader, 308-4290, CP3/4 3D62

Voluntary Results Feedback Form

➤ I am an examiner in Workgroup: Example:

➤ Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
(Journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art not found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Search results were not useful in determining patentability or understanding the invention.

Other Comments:

=> FILE REG

FILE 'REGISTRY' ENTERED AT 10:19:54 ON 24 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 American Chemical Society (ACS)

STRUCTURE FILE UPDATES: 22 MAY 2002 HIGHEST RN 420781-77-7
DICTIONARY FILE UPDATES: 22 MAY 2002 HIGHEST RN 420781-77-7

TSCA INFORMATION NOW CURRENT THROUGH July 7, 2001

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Calculated physical property data is now available. See HELP PROPERTIES
for more information. See STNote 27, Searching Properties in the CAS
Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 10:20:00 ON 24 MAY 2002
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is
held by the publishers listed in the PUBLISHER (PB) field (available
for records published or updated in Chemical Abstracts after December
26, 1996), unless otherwise indicated in the original publications.
The CA Lexicon is the copyrighted intellectual property of the
the American Chemical Society and is provided to assist you in searching
databases on STN. Any dissemination, distribution, copying, or storing
of this information, without the prior written consent of CAS, is
strictly prohibited.

FILE COVERS 1907 - 24 May 2002 VOL 136 ISS 21
FILE LAST UPDATED: 22 May 2002 (20020522/ED)

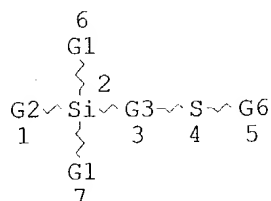
This file contains CAS Registry Numbers for easy and accurate
substance identification.

CAS roles have been modified effective December 16, 2001. Please
check your SDI profiles to see if they need to be revised. For
information on CAS roles, enter HELP ROLES at an arrow prompt or use
the CAS Roles thesaurus (/RL field) in this file.

=> D QUE

L6

STR



Ak~Cb~Ak
@8 9 @10

Ak~Cb
@11 @12

S~O
@13 14

P~O
@21 22

O~C~G5
15 @16 17

O~P~S
18 @19 @20

VAR G1=CL/BR/O/N/AK/H/CB
VAR G2=CL/BR/O/N
VAR G3=AK/CB/8-2 10-4/11-2 12-4/12-2 11-4
VAR G5=O/S
VAR G6=13/16/19/21/20
NODE ATTRIBUTES:
CONNECT IS E1 RC AT 14
CONNECT IS E1 RC AT 15
CONNECT IS E1 RC AT 18
CONNECT IS E1 RC AT 22
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 22

STEREO ATTRIBUTES: NONE
L8 35 SEA FILE=REGISTRY SSS FUL L6
L10 6 SEA FILE=HCAPLUS ABB=ON L8

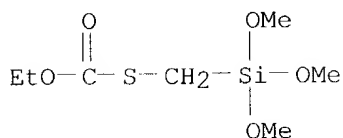
=> D L10 ALL 1-6 HITSTR

L10 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2002 ACS
AN 1999:564170 HCAPLUS
DN 131:286556
TI 1-(Trialkylstannylthioalkyl)silatranes
AU Sorokin, M. S.; Stankevich, O. S.; Kuznetsova, G. V.; Lopyrev, V. A.;
Voronkov, M. G.
CS Irkutsk Institute of Chemistry, Siberian Branch, Russian Academy of
Sciences, Irkutsk, Russia
SO Russian Journal of General Chemistry (Translation of Zhurnal Obshchei
Khimii) (1999), 69(4), 560-563
CODEN: RJGCEK; ISSN: 1070-3632
PB MAIK Nauka/Interperiodica Publishing
DT Journal
LA English
CC 29-6 (Organometallic and Organometalloidal Compounds)
AB Two methods of synthesis of 1-(trialkylstannylthioalkyl)silatranes
R3SnS(CH2)nSi(OCH2CH2)3N (n = 1, 2) have been developed. The first method
involves transesterification of corresponding trimethoxysilanes with
tris(2-hydroxyethyl)amine, and the second is based on reaction of
sulfur-contg. 1-organo-silatranes of the general formula
RS(CH2)nSi(OCH2CH2)3N, where R = H, N.tplbond.C, MeCO, EtOC(S), with

35 structures from
the query

6 CA references - no
utility specified.
No answers in
CAold

- trialkylalkoxystannanes or hexaethyldistannoxane. Reaction of 1-(triethylstannylthiomethyl)silatrane $\text{Et}_3\text{SnSCH}_2\text{Si}(\text{OCH}_2\text{CH}_2)_3\text{N}$ with excess MeI involves cleavage of the Sn-S bond and results in formation of triethyliodostannane and dimethyl(1-silatranylmethyl)sulfonium iodide. Antimicrobial activity of the products has been studied.
- ST alkyl stannylthioalkyl silatrane prepn
- IT Group IVA element compounds
Group IVA element compounds
Organometallic compounds
Organometallic compounds
RL: SPN (Synthetic preparation); PREP (Preparation)
(silatranes; prepn. of (trialkylstannylthioalkyl)silatranes)
- IT 110275-63-3P 246544-78-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
- IT 102-71-6, Tris(2-hydroxyethyl)amine, reactions 757-36-8, Triethyltin isocyanate 1067-21-6, Triethylmethoxystannane 1067-52-3, Tributylmethoxystannane 1112-63-6, Hexaethyldistannoxane 57025-58-8 57036-62-1 60171-40-6 71296-07-6 92973-68-7 246544-74-1 246544-76-3 246875-74-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of (trialkylstannylthioalkyl)silatranes)
- IT 246544-77-4P 246544-79-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of (trialkylstannylthioalkyl)silatranes)
- RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
- (1) Anderson, H; J Org Chem 1954, V19(7), P1300
 - (2) Anderson, H; J Org Chem 1954, V19(11), P1766
 - (3) Anon; JP 61-53292 1986 HCAPLUS
 - (4) Anon; JP 61-56190 1986
 - (5) Anon; JP 61-69781 1986 HCAPLUS
 - (6) Anon; JP 62-81393 1987 HCAPLUS
 - (7) Anon; Ref Zh Khim 1987, P110384P
 - (8) Anon; Ref Zh Khim 1987, P120204P
 - (9) Anon; Ref Zh Khim 1987, P70461P
 - (10) Anon; Ref Zh Khim 1988, P120403P
 - (11) Delepine, A; Ann Chim P556
 - (12) Delepine, A; Ann Chim 1912, V8(25), P547
 - (13) Voronkov, M; Chemistry of Organoelement Compounds
 - (14) Voronkov, M; Izv Sib Otd Akad Nauk SSSR Ser Khim Nauk 1977, 1, P128 HCAPLUS
 - (15) Voronkov, M; Khimiya elementorganicheskikh soedinenii 1976, P43 HCAPLUS
 - (16) Voronkov, M; Zh Obshch Khim 1975, V45(6), P1394 HCAPLUS
 - (17) Voronkov, M; Zh Obshch Khim 1975, V45(6), P1395 HCAPLUS
 - (18) Voronkov, M; Zh Obshch Khim 1975, V45(7), P1649 HCAPLUS
 - (19) Voronkov, M; Zh Obshch Khim 1979, V49(12), P2671 HCAPLUS
 - (20) Voronkov, M; Zh Obshch Khim 1989, V59(7), P1581 HCAPLUS
 - (21) Voronkov, M; Zh Prikl Khim 1996, V69(10), P1594 HCAPLUS
- IT 246544-76-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of (trialkylstannylthioalkyl)silatranes)
- RN 246544-76-3 HCAPLUS
- CN Carbonothioic acid, O-ethyl S-[(trimethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)



L10 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 1999:139852 HCAPLUS

DN 130:197784

TI Blocked mercaptosilane coupling agents for filled rubbers

IN Cruse, Richard W.; Pickwell, Robert J.; Weller, Keith J.; Pohl, Eric R.

PA OSI Specialties, Inc., USA

SO PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07F007-18

ICS C08J005-08; C08K005-54

CC 39-9 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9909036	A1	19990225	WO 1998-US17391	19980821
	W: AU, BR, CN, ID, JP, KR, SG, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	AU 9889179	A1	19990308	AU 1998-89179	19980821
	BR 9806096	A	19990824	BR 1998-6096	19980821
	EP 958298	A1	19991124	EP 1998-941025	19980821
	R: AT, BE, DE, ES, FR, GB, IT, LU, NL, SE, PT, IE, FI				
	JP 2001505225	T2	20010417	JP 1999-513639	19980821
	US 6204339	B1	20010320	US 1999-245454	19990205
	US 6127468	A	20001003	US 1999-252559	19990219
	US 6323277	B1	20011127	US 1999-266500	19990311
	US 2002055646	A1	20020509	US 2001-986513	20011109
	US 2002055568	A1	20020509	US 2001-986514	20011109
	US 2002055564	A1	20020509	US 2001-986515	20011109
PRAI	US 1997-56566P	P	19970821		
	US 1998-62047	A2	19980417		
	WO 1998-US17391	W	19980821		
	US 1999-284841	A3	19990421		

OS MARPAT 130:197784

AB This invention describes novel blocked mercaptosilanes wherein the hydrogen atom of the mercaptan functionality has been substituted. The invention includes methods of prepn. for the blocked mercaptosilicon compds. as well as their use in filled rubbers. The blocked mercaptosilanes described are unique in that they allow the mixing of fillers with org. polymers to proceed while remaining inert toward coupling to the polymer. The coupling reactions of these blocked mercaptosilicon compds. are triggered by addn. of an appropriate deblocking agent.

ST blocked mercapto silane coupling agent rubber

IT Coupling agents

(mercaptosilanes; blocked mercaptosilane coupling agents for filled rubbers)

IT Shoes

(soles; blocked mercaptosilane coupling agents for filled rubbers)

IT Tires
(treads; blocked mercaptosilane coupling agents for filled rubbers)

IT 78-08-0, Vinyltriethoxysilane 79-03-8, Propionyl chloride 98-88-4,
Benzoyl chloride 108-24-7 111-64-8, Octanoyl chloride 507-09-5,
Ethanethioic acid, reactions 4420-74-0 14814-09-6 29656-55-1,
Chloropropyltriethoxysilane 31001-77-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(blocked mercaptosilane coupling agents for filled rubbers)

IT 220727-55-9
RL: TEM (Technical or engineered material use); USES (Uses)
(blocked mercaptosilane coupling agents for filled rubbers)

IT 16709-98-1 16720-19-7 40055-63-8 62589-60-0 64456-54-8
67764-43-6 67764-45-8 216962-96-8 220726-87-4 220726-88-5
220726-89-6 220726-90-9 220726-91-0 220726-92-1 220726-93-2
220726-94-3 220726-95-4 220726-96-5 220726-97-6 220726-98-7
220726-99-8 220727-00-4 220727-01-5 220727-02-6 220727-03-7
220727-04-8 220727-05-9 220727-06-0 220727-07-1 220727-08-2
220727-09-3 220727-10-6 220727-11-7 220727-12-8 220727-13-9
220727-14-0 220727-15-1 220727-16-2 220727-17-3 220727-18-4
220727-19-5 220727-20-8 220727-21-9 220727-22-0 220727-23-1
220727-24-2 220727-25-3 220727-26-4 220727-27-5 220727-28-6
220727-29-7 220727-30-0 220727-31-1 220727-32-2 220727-33-3
220727-34-4 220727-35-5 220727-36-6
220727-37-7 220727-38-8 220727-39-9 220727-40-2
220727-41-3 **220727-42-4 220727-43-5**
220727-44-6 220727-45-7 220727-46-8
220727-47-9 220727-48-0 220727-49-1
220727-50-4 220727-51-5 220727-52-6
220727-53-7 220727-54-8 220753-20-8
220753-21-9 220753-22-0 220753-23-1
220753-24-2 220753-25-3 220753-26-4
RL: TEM (Technical or engineered material use); USES (Uses)
(coupling agent; blocked mercaptosilane coupling agents for filled
rubbers)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD

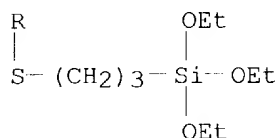
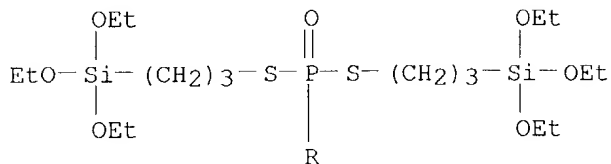
RE

(1) Bell, R; US 3922436 A 1975 HCAPLUS
(2) Berger, A; US 3692812 A 1972 HCAPLUS
(3) Bridgestone Corp; DE 3813678 A 1988 HCAPLUS
(4) Compagnie Generale Des Etablissements Michelin-Michelin & Cie; EP 0784072 A
1997 HCAPLUS
(5) Compagnie Generale Des Etablissements Michelin-Michelin & Cie; AU 1008297 A
1997
(6) Dynamit Nobel Ag; DE 2508931 A 1976 HCAPLUS
(7) Gornowicz, G; The Journal of Organic Chemistry 1968, V33(7), P2918 HCAPLUS
(8) Ito, K; epoxy resin potting compositions for semiconductor devices 1989
HCAPLUS
(9) Shin-Etsu Chemical Industry Co Ltd; JP 63248821 A HCAPLUS
(10) Voronkov, M; "trialkoxysilylalkanethiol and bis(trialkoxysilylalkyl)
sulfides" Izvestiya Akademii Nauk Sssr 1977, 8, P1849 HCAPLUS

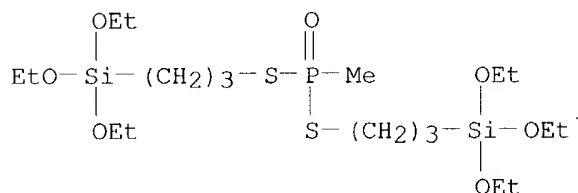
IT **67764-43-6 220727-34-4 220727-35-5**
220727-36-6 220727-37-7 220727-42-4
220727-43-5 220727-44-6 220727-45-7
220727-46-8 220727-47-9 220727-48-0
220727-49-1 220727-50-4 220727-51-5
220727-52-6 220727-53-7 220727-54-8
220753-21-9 220753-22-0 220753-23-1
220753-24-2 220753-25-3 220753-26-4
RL: TEM (Technical or engineered material use); USES (Uses)
(coupling agent; blocked mercaptosilane coupling agents for filled

rubbers)

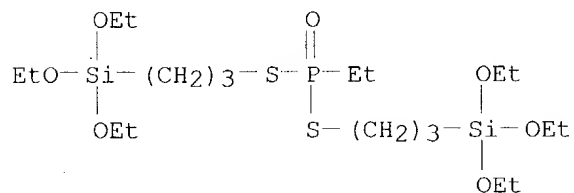
RN 67764-43-6 HCAPLUS

CN Phosphorotrithioic acid, S,S,S-tris[3-(triethoxysilyl)propyl] ester (9CI)
(CA INDEX NAME)

RN 220727-34-4 HCAPLUS

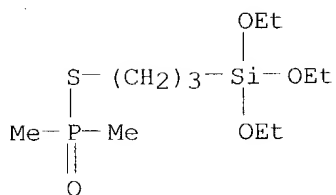
CN Phosphonodithioic acid, methyl-, S,S-bis[3-(triethoxysilyl)propyl] ester
(9CI) (CA INDEX NAME)

RN 220727-35-5 HCAPLUS

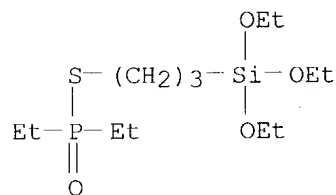
CN Phosphonodithioic acid, ethyl-, S,S-bis[3-(triethoxysilyl)propyl] ester
(9CI) (CA INDEX NAME)

RN 220727-36-6 HCAPLUS

CN Phosphinothioic acid, dimethyl-, S-[3-(triethoxysilyl)propyl] ester (9CI)
(CA INDEX NAME)

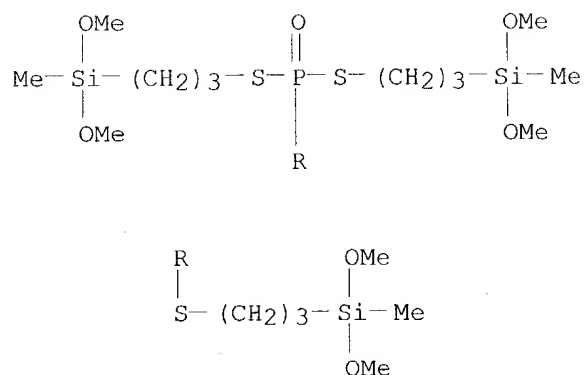


RN 220727-37-7 HCAPLUS

CN Phosphinothioic acid, diethyl-, S-[3-(triethoxysilyl)propyl] ester (9CI)
(CA INDEX NAME)

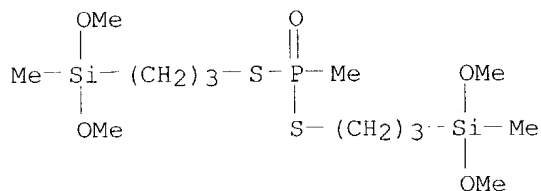
RN 220727-42-4 HCAPLUS

CN Phosphorotrithioic acid, S,S,S-tris[3-(dimethoxymethylsilyl)propyl] ester (9CI) (CA INDEX NAME)



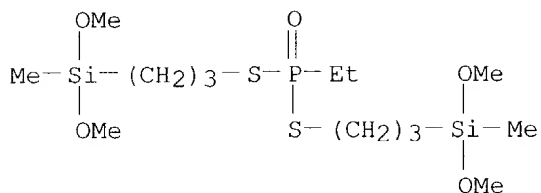
RN 220727-43-5 HCAPLUS

CN Phosphonodithioic acid, methyl-, S,S-bis[3-(dimethoxymethylsilyl)propyl] ester (9CI) (CA INDEX NAME)



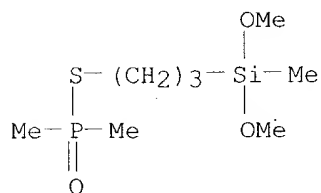
RN 220727-44-6 HCAPLUS

CN Phosphonodithioic acid, ethyl-, S,S-bis[3-(dimethoxymethylsilyl)propyl] ester (9CI) (CA INDEX NAME)



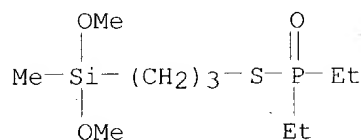
RN 220727-45-7 HCAPLUS

CN Phosphinothioic acid, dimethyl-, S-[3-(dimethoxymethylsilyl)propyl] ester (9CI) (CA INDEX NAME)



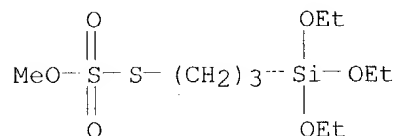
RN 220727-46-8 HCAPLUS

CN Phosphinothioic acid, diethyl-, S-[3-(dimethoxymethylsilyl)propyl] ester (9CI) (CA INDEX NAME)



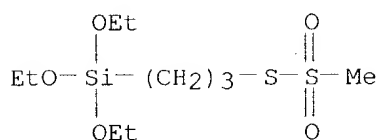
RN 220727-47-9 HCAPLUS

CN Thiosulfuric acid (H₂S₂O₃), O-methyl S-[3-(triethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)



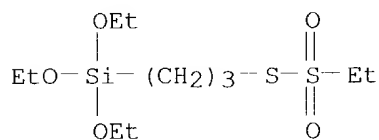
RN 220727-48-0 HCAPLUS

CN Methanesulfonothioic acid, S-[3-(triethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)



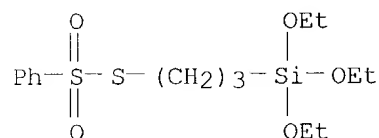
RN 220727-49-1 HCAPLUS

CN Ethanesulfonothioic acid, S-[3-(triethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)

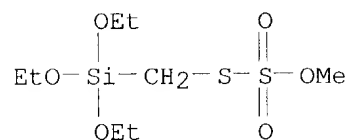


RN 220727-50-4 HCAPLUS

CN Benzenesulfonothioic acid, S-[3-(triethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)

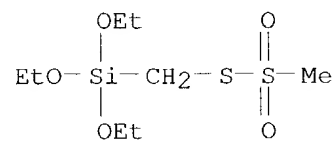


RN 220727-51-5 HCAPLUS

CN Thiosulfuric acid (H₂S₂O₃), O-methyl S-[(triethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)

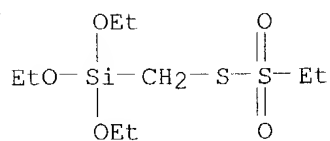
RN 220727-52-6 HCAPLUS

CN Methanesulfonothioic acid, S-[(triethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)



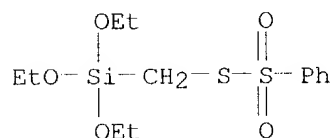
RN 220727-53-7 HCAPLUS

CN Ethanesulfonothioic acid, S-[(triethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)



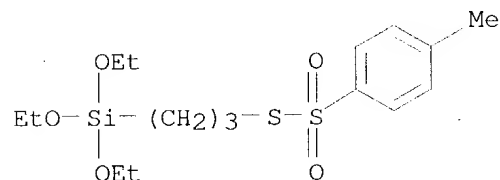
RN 220727-54-8 HCAPLUS

CN Benzenesulfonylthioic acid, S-[(triethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)



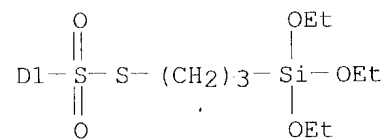
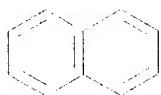
RN 220753-21-9 HCAPLUS

CN Benzenesulfonylthioic acid, 4-methyl-, S-[3-(triethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)



RN 220753-22-0 HCAPLUS

CN Naphthalenesulfonylthioic acid, S-[3-(triethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)

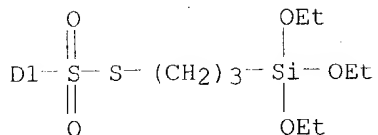


RN 220753-23-1 HCAPLUS

CN Benzenesulfonylthioic acid, dimethyl-, S-[3-(triethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)

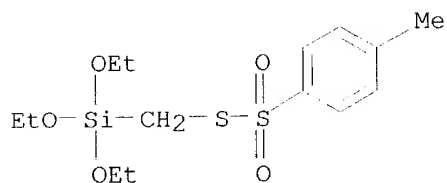


2 (D1-Me)



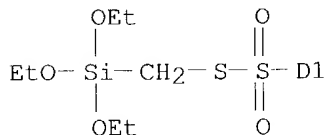
RN 220753-24-2 HCAPLUS

CN Benzenesulfonylthioic acid, 4-methyl-, S-[(triethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)



RN 220753-25-3 HCAPLUS

CN Naphthalenesulfonylthioic acid, S-[(triethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)

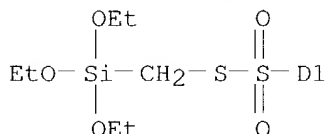


RN 220753-26-4 HCAPLUS

CN Benzenesulfonylthioic acid, dimethyl-, S-[(triethoxysilyl)methyl] ester (9CI) (CA INDEX NAME)



2 (D1-Me)



L10 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2002 ACS

AN 1994:31605 HCAPLUS

DN 120:31605

TI Preparation and use of siloxanes bearing Bunte salt groups

IN Hager, Rudolf; Deubzer, Bernward

PA Wacker-Chemie G.m.b.H., Germany

SO Eur. Pat. Appl., 17 pp.

CODEN: EPXXDW

DT Patent

LA German

IC ICM C08G077-28

ICS C08G077-38; C07F007-08

CC 35-8 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 29

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 538868	A1	19930428	EP 1992-118117	19921022
	EP 538868	B1	19940824		
	R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
	DE 4135142	A1	19930429	DE 1991-4135142	19911024
	US 5210249	A	19930511	US 1992-944579	19920914
	JP 05214105	A2	19930824	JP 1992-282674	19921021
	JP 2509425	B2	19960619		
	ES 2059185	T3	19941101	ES 1992-118117	19921022
PRAI	DE 1991-4135142		19911024		

AB The title products are prepd. by treating the silanes $\text{R}_1\text{aR}_2\text{bSi}(\text{OR}_3)_4\text{-a-b}$ ($\text{R}_1, \text{R}_3 = \text{H}$, org. group; $\text{R}_2 = \text{halohydrocarbyl}$; $\text{a} = 0\text{-}2$; $\text{b} = 1\text{-}3$; $\text{a} + \text{b} \leq 3$) or their partial hydrolyzates with thiosulfate salts. Stirring 20 g (3-chloropropyl)methoxydimethylsilane and 32.7 g $\text{Na}_2\text{S}_2\text{O}_3 \cdot 5\text{H}_2\text{O}$ in 100 mL H_2O strongly at 100.degree. for 7 h gave 27.6 g $\text{O}[\text{Si}(\text{Me})_2(\text{CH}_2)_3\text{S}_2\text{O}_3\text{Na}]_2$.

ST Bunte salt siloxane deriv; disiloxane Bunte salt deriv; thiosulfate reaction siloxane; chloropropylsiloxane reaction thiosulfate

IT Siloxanes and Silicones, preparation

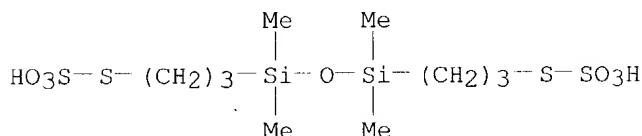
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation)
(Bunte salt group-contg., manuf. and hydrolysis of)

IT Siloxanes and Silicones, preparation

RL: PREP (Preparation)

(mercaptopropyl, prepn. of, by hydrolysis of Bunte salt group-contg.)

siloxanes)
 IT 152016-61-0P
 RL: PREP (Preparation)
 (prepn. of)
 IT 7772-98-7, Disodium thiosulfate
 RL: RCT (Reactant)
 (reaction of, with siloxanes and silanes)
 IT 13501-76-3 18171-14-7
 RL: RCT (Reactant)
 (reaction of, with sodium thiosulfate)
 IT 152016-61-0P
 RL: PREP (Preparation)
 (prepn. of)
 RN 152016-61-0 HCAPLUS
 CN Thiosulfuric acid (H₂S₂O₃), S,S'-[(1,1,3,3-tetramethyl-1,3-disiloxanediyl)di-3,1-propanediyl] ester, disodium salt (9CI) (CA INDEX NAME)



● 2 Na

L10 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2002 ACS
 AN 1991:254062 HCAPLUS
 DN 114:254062
 TI Preparation of vinyl carbonate and vinyl carbamate copolymers for contact lenses
 IN Bambury, Ronald E.; Seelye, David E.
 PA Bausch and Lomb Inc., USA
 SO Eur. Pat. Appl., 36 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C08F218-00
 ICS G02B001-04; C07C271-08; C07C069-00; C07D207-404; C07D207-27
 CC 63-7 (Pharmaceuticals)
 Section cross-reference(s): 23, 24, 25, 27, 28, 35

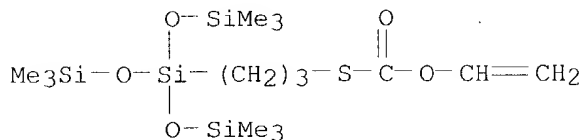
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 396364	A2	19901107	EP 1990-304659	19900430
	EP 396364	A3	19911127		
	EP 396364	B1	19970611		
	R: DE, ES, FR, GB, IT, SE				
	US 5070215	A	19911203	US 1989-346204	19890502
	CA 2014210	AA	19901102	CA 1990-2014210	19900409
	JP 03072506	A2	19910327	JP 1990-110664	19900427
	EP 757033	A2	19970205	EP 1996-202972	19900430
	EP 757033	A3	19970305		
	EP 757033	B1	19990303		
	R: DE, ES, FR, GB, IT, SE				

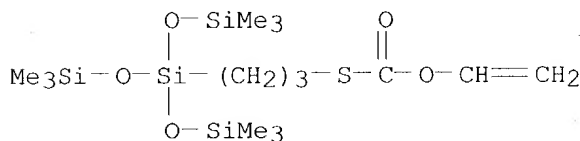
	ES 2104583	T3	19971016	ES 1990-304659	19900430
	ES 2131907	T3	19990801	ES 1996-202972	19900430
	AU 9054616	A1	19901108	AU 1990-54616	19900501
	AU 645749	B2	19940127		
	BR 9002045	A	19910813	BR 1990-2045	19900502
	US 5610252	A	19970311	US 1995-450510	19950525
	US 6166236	A	20001226	US 1997-784637	19970121
PRAI	US 1989-346204	A	19890502		
	EP 1990-304659	A3	19900430		
	US 1991-724091	A3	19910719		
	US 1995-450510	A3	19950525		
AB	Vinyl carbonate and vinyl carbamate monomers (Markush given) are prep'd. and are used to produce copolymers useful as hydrogel, soft nonhydrogel, and/or rigid gas-permeable contact lens materials. Thus, 3-aminopropyl(trimethylsiloxy)silane was reacted with vinyl chloroformate to form 3-[tris(trimethylsiloxy)silyl]propyl vinyl carbamate, which was copolymerized in different ratios with N-vinylpyrrolidenone and 1,5-bis(vinylloxycarboxyloxy)-2,2,3,3,4,4-hexachloropentane to form soft hydrogel copolymer. Tensile strength, O permeability, refractive index, and other properties of the hydrogel polymers were det'd. Synthesis of many monomers and crosslinkers is included.				
ST	vinyl carbonate prep'n contact lens; carbamate vinyl prep'n contact lens; contact lens vinyl copolymer				
IT	Polycarbonates, biological studies				
	RL: BIOL (Biological study)				
	(Me vinyl siloxane-, hard contact lens from)				
IT	Siloxanes and Silicones, biological studies				
	RL: BIOL (Biological study)				
	(Me vinyl, polycarbonate-, hard contact lens from)				
IT	Lenses				
	(contact, hard, vinyl carbonate and vinyl carbamate copolymers for)				
IT	Siloxanes and Silicones, preparation				
	RL: PREP (Preparation)				
	(vinyl group-terminated, prep'n. of, as monomer for contact lens copolymer)				
IT	40965-80-8P				
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)				
	(prep'n. and reaction of, in monomer prep'n. for contact lens copolymer)				
IT	72978-28-0P	134073-16-8P			
	RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation)				
	(prep'n. and reaction of, in prep'n. of contact lens copolymer)				
IT	134027-40-0P	134073-06-6P	134073-17-9P	134073-18-0P	134073-19-1P
	134073-20-4P	134073-21-5P	134073-22-6P	134073-23-7P	134073-24-8P
	134096-37-0P				
	RL: PREP (Preparation)				
	(prep'n. of, as crosslinker for contact lens copolymer)				
IT	57933-88-7P	57933-92-3P	96383-58-3P	119448-07-6P	134072-84-7P
	134072-85-8P	134072-86-9P	134072-87-0P	134072-88-1P	134072-89-2P
	134072-90-5P	134072-91-6P	134072-92-7P	134072-93-8P	134072-94-9P
	134072-95-0P	134072-96-1P	134072-97-2P	134072-99-4P	
	134073-00-0P	134073-02-2P	134073-03-3P	134073-04-4P	
	134073-05-5P	134073-06-6P	134073-09-9P	134073-10-2P	134073-11-3P
	134073-12-4P	134073-13-5P	134073-14-6P	134073-15-7P	134073-25-9P,
	1,2,3-Tris(vinylloxycarbonyloxy)propane 134073-26-0P				
	RL: PREP (Preparation)				
	(prep'n. of, as monomer for contact lens copolymer)				
IT	88-12-0DP, polymers with vinyl-terminated siloxanes and hexafluoropentane divinylcarbonate and vinylpyrrolidinone 134072-97-2DP, polymers with vinyl-terminated siloxanes and bis(vinylloxycarbonyloxy)propane and vinylpyrrolidinone 134073-00-0DP , polymers with vinyl-terminated				

- siloxanes and bis(vinylloxycarbonyloxy)hexafluoropropyl vinyl carbonate and vinylpyrrolidinone 134073-02-2DP, polymers with vinyl-terminated siloxanes and tris(trimethylsiloxy)propyl vinyl carbonate and bis(vinylloxycarbonyloxy)propane 134073-20-4DP, polymers with vinyl-terminated siloxanes and [tris(trimethylsiloxy)silyl]propyl vinyl carbonate and vinylpyrrolidinone 134073-24-8DP, polymers with vinyl-terminated siloxanes and [tris(trimethylsiloxy)silyl]propyl vinyl carbonate and vinylpyrrolidinone 134119-45-2P 134119-46-3P 134119-47-4P 134119-48-5P 134119-49-6P
RL: THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, for contact lens)
- IT 134073-08-8P
RL: PREP (Preparation)
(prepn. of, for monomer for contact lens copolymer)
- IT 107-19-7, Propargyl alcohol 112-27-6, Triethylene glycol 124-09-4, 1,6-Diaminohexane, reactions 126-30-7, 2,2-Dimethyl-1,3-propanediol 141-43-5, Aminoethanol, reactions 373-44-4, 1,8-Diaminooctane 376-90-9, 2,2,3,3,4,4-Hexafluoro-1,5-pentanediol 25322-68-3, Poly(ethylene glycol) 25322-69-4, Polypropylene glycol
RL: RCT (Reactant)
(reaction of, in crosslinker prepn. for contact lens copolymer)
- IT 109-89-7, Diethylamine, reactions 540-51-2, 2-Bromoethanol 4801-27-8, 2-Bromoethyl chloroformate
RL: RCT (Reactant)
(reaction of, in intermediate prepn. for contact lens copolymer)
- IT 56-81-5, Glycerol, reactions 75-89-8, 2,2,2-Trifluoroethanol 98-52-2, 4-t-Butylcyclohexanol 99-71-8 110-85-0, Piperazine, reactions 115-77-5, Pentaerythritol, reactions 124-40-3, Dimethylamine, reactions 141-43-5, Ethanolamine, reactions 340-04-5, 1-Phenyl-2,2,2-trifluoroethanol 373-88-6, 2,2,2-Trifluoroethylamine hydrochloride 556-67-2, Octamethylcyclotetrasiloxane 768-94-5, Tricyclo[3.3.1.1^{3,7}]decan-1-amine 768-95-6, 1-Adamantanol 769-92-6 770-71-8, Tricyclo[3.3.1.1^{3,7}]decane-1-methanol 920-66-1, 1,1,1,3,3,3-Hexafluoro-2-propanol 999-97-3, Hexamethyldisilazane 2374-14-3 2754-27-0, Trimethylsilyl acetate 2916-68-9 2917-47-7, Trimethylsilyl-3-propanol 2937-50-0, Allyl chloroformate 3069-25-8 3219-63-4, Trimethylsilylmethanol 3445-11-2 5931-17-9 6066-82-6, N-Hydroxysuccinimide 6240-11-5, Tricyclo[3.3.1.1^{3,7}]decane-1-ethanol 7328-91-8, 2,2-Dimethyl-1,3-diaminopropane 13074-39-0, Tricyclo[3.3.1.1^{3,7}]decan-2-amine 18077-31-1, 3-Chloropropyltris(trimethylsiloxy)silane 18190-44-8, N-(2-Hydroxyethyl)succinimide 25357-81-7 62012-15-1 72978-28-0 102229-10-7 103542-02-5 134072-85-8 134072-98-3 **134073-01-1** 134073-07-7
RL: RCT (Reactant)
(reaction of, in monomer prepn. for contact lens copolymer)
- IT 5130-24-5, Vinyl chloroformate
RL: RCT (Reactant)
(reaction of, with ethylene glycol in monomer prepn. for contact lens copolymer)
- IT 107-21-1, Ethylene glycol, reactions
RL: RCT (Reactant)
(reaction of, with vinyl chloroformate in monomer prepn. for contact lens copolymer)
- IT **134073-00-0P**
RL: PREP (Preparation)
(prepn. of, as monomer for contact lens copolymer)
- RN 134073-00-0 HCAPLUS
CN Carbonothioic acid, O-ethenyl S-[3-[3,3,3-trimethyl-1,1-

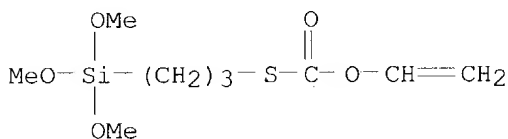
bis[(trimethylsilyl)oxy]disiloxanyl]propyl] ester (9CI) (CA INDEX NAME)



IT 134073-00-ODP, polymers with vinyl-terminated siloxanes and bis(vinyloxycarbonyloxy)hexafluoropropyl vinyl carbonate and vinylpyrrolidinone
 RL: THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of, for contact lens)
 RN 134073-00-0 HCAPLUS
 CN Carbonothioic acid, O-ethenyl S-[3-[3,3,3-trimethyl-1,1-bis[(trimethylsilyl)oxy]disiloxanyl]propyl] ester (9CI) (CA INDEX NAME)



IT 134073-01-1
 RL: RCT (Reactant)
 (reaction of, in monomer prepn. for contact lens copolymer)
 RN 134073-01-1 HCAPLUS
 CN Carbonothioic acid, O-ethenyl S-[3-(trimethoxysilyl)propyl] ester (9CI) (CA INDEX NAME)



L10 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2002 ACS
 AN 1978:547045 HCAPLUS
 DN 89:147045
 TI Sulfur- and phosphorus-containing organosilicon compounds
 IN Pletka, Hans; Zezulka, Gerd
 PA Deutsche Gold- und Silber-Scheideanstalt vorm. Roessler, Ger.
 SO Ger. Offen., 19 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC C07F009-16
 CC 29-6 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 37, 38, 51, 72
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

PI	DE 2658368	A1	19780706	DE 1976-2658368	19761223
	DE 2658368	C2	19820923		
	NL 7713152	A	19780627	NL 1977-13152	19771129
	GB 1581079	A	19801210	GB 1977-50306	19771202
	US 4152347	A	19790501	US 1977-859968	19771212
	FR 2375243	A1	19780721	FR 1977-38391	19771220
	FR 2375243	B1	19800919		
	BR 7708476	A	19780808	BR 1977-8476	19771220
	DD 135494	C	19790509	DD 1977-202809	19771220
	BE 862222	A1	19780622	BE 1977-46283	19771222
	CS 202090	P	19801231	CS 1977-8709	19771222
	JP 53079823	A2	19780714	JP 1977-155497	19771223
	JP 61015877	B4	19860426		
	US 4222930	A	19800916	US 1978-967577	19781208
PRAI	DE 1976-2658368		19761223		
	US 1977-859968		19771212		

AB The title compds. 10 silylpropyl thiophosphates, [Rln(R2O)3-nSiXS]xZ [Z = PO, PS, P, PR, PR2, P(OR)2, P(O)(OR)2, P(S)(OR)2, P(O)(OR), P(S)(OR); R = C1-5 alkyl, Ph, o-, m-, p-O2NC6H4; X = C2-4 alkylene; R1 = C1-5 alkyl, Ph, PhCH2, R2 = C1-5 alkyl, C5-8 cycloalkyl, Ph, PhCH2, MeOCH2CH2; n = 0-2; x = 1-3], useful as corrosion inhibitors, lubricant additives, rubber adhesives, and vulcanization accelerators, were prepd. by the reaction of Rln(R2O)3-nSiXSH with YxZ (Y = halide). Thus, 294 g HS(CH2)3Si(OMe)3 and 85 g Cl3PS in 200 mL Et3N and 650 mL petroleum ether gave 98.5% [(MeO)3Si(CH2)3S]3PS. Similarly prepd. were [(EtO)3Si(CH2)3S]3PO, [(BuO)3Si(CH2)3S]3PS, (MeO)3Si(CH2)3SP(S)(OEt)2, and [(EtO)3Si(CH2)3S]3P.

ST silylpropyl thiophosphate; phosphorothioate silylpropyl; corrosion inhibitor silylpropyl phosphorothioate; lubricant additive silylpropyl phosphorothioate; vulcanization accelerator silylpropyl phosphorothioate; adhesive silylpropyl phosphorothioate; rubber adhesive silylpropyl phosphorothioate

IT Corrosion inhibitors
Lubricating grease additives
Vulcanization accelerators
(silylpropyl thiophosphates)

IT Adhesives
(rubber, silylpropyl thiophosphates)

IT 67764-42-5P 67764-43-6P 67764-44-7P 67764-45-8P
67764-46-9P 67764-47-0P 67764-48-1P 67764-49-2P
67764-50-5P 67764-51-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

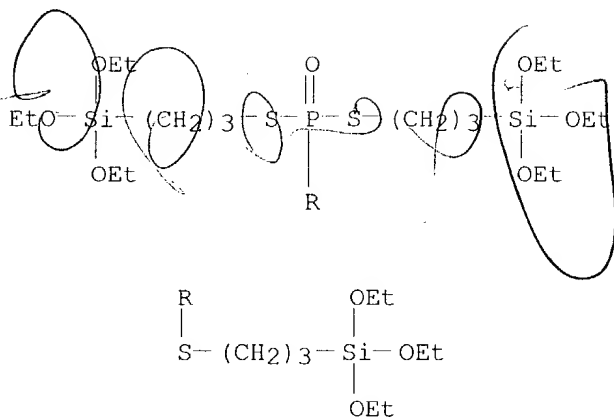
IT 4420-74-0 14814-09-6 42169-84-6
RL: RCT (Reactant)
(reaction with chlorophosphines)

IT 814-49-3 2524-04-1 3982-91-0 7719-12-2 10025-87-3
RL: RCT (Reactant)
(reaction with mercaptopropylsilanes)

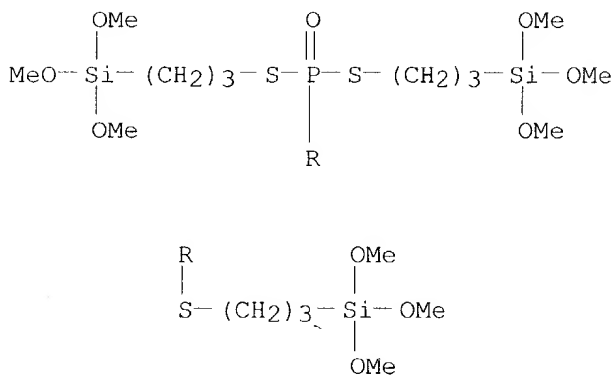
IT 67764-43-6P 67764-44-7P 67764-47-0P
67764-49-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 67764-43-6 HCAPLUS

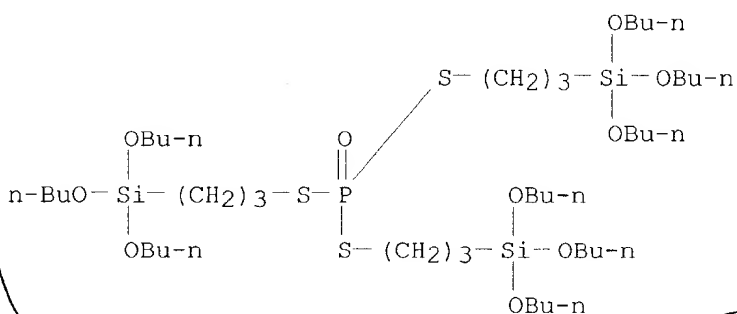
CN Phosphorotrithioic acid, S,S,S-tris[3-(triethoxysilyl)propyl] ester (9CI)
(CA INDEX NAME)



RN 67764-44-7 HCAPLUS

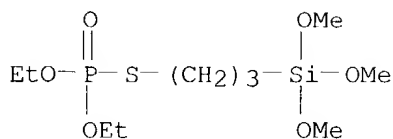
CN Phosphorotrithioic acid, S,S,S-tris[3-(trimethoxysilyl)propyl] ester (9CI)
(CA INDEX NAME)

RN 67764-47-0 HCAPLUS

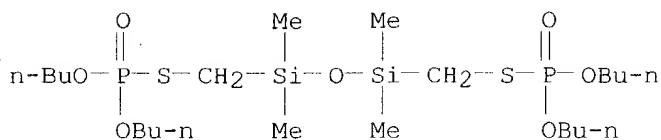
CN Phosphorotrithioic acid, S,S,S-tris[3-(tributoxysilyl)propyl] ester (9CI)
(CA INDEX NAME)

RN 67764-49-2 HCAPLUS

CN Phosphorothioic acid, O,O-diethyl S-[3-(trimethoxysilyl)propyl] ester (9CI)
(CA INDEX NAME)



- L10 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2002 ACS
 AN 1977:535546 HCAPLUS
 DN 87:135546
 TI Carbonfunctional organosilicon compounds substituted in the .alpha.-position. II. Phosphorus-containing organosilicon compounds
 AU Dvorak, Mojmir; Cermak, Jiri; Miksa, Jaroslav; Dostal, Pavel
 CS Vyzk. Ustav Org. Synt., Pardubice-Rybitvi, Czech.
 SO Chem. Prum. (1977), 27(5), 234-7
 CODEN: CHPUA4
 DT Journal
 LA Czech
 CC 29-6 (Organometallic and Organometalloidal Compounds)
 Section cross-reference(s): 39
 AB The compds. contg. P or both P and S in the mol., e.g. Me3SiOP(O)(OH)2, were prepd. by literature methods. Low thermal resistance of these compds. allows their application at temp. .ltoreq.100.degree.. The compds. have antistatic, fire-retardant, and medical properties. The surface resistance of glass fiber cloth decreases by 4 orders of magnitude when some of these compds. are added. Tris(trimethylsilyl) phosphate and dibutylphosphonomethyltetramethyldisiloxane have the best antistatic properties of the 10 compds. examd.
 ST silyl phosphate; phosphonate silyl; fire retardant silyl phosphate; antistatic silyl phosphate
 IT Siloxanes and Silicones, polymers
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (phosphates, prepn. and antistatic properties of)
 IT Antistatic agents
 (silyl phosphates)
 IT Fireproofing
 (silyl phosphates for)
 IT 7422-66-4P 10497-05-9P 17886-91-8P 17940-10-2P 63382-76-3P
 63382-77-4P **63382-78-5P** 63382-79-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 IT 75-77-4, reactions 78-08-0 2362-10-9 5507-44-8
 RL: RCT (Reactant)
 (reaction of, with phosphorus acids)
 IT 56-33-7 107-46-0 1591-02-2
 RL: RCT (Reactant)
 (reaction of, with phosphorus pentoxide)
 IT 868-85-9 1314-56-3, reactions 7778-77-0 10533-41-2 63382-80-9
 RL: RCT (Reactant)
 (reaction of, with silanes)
 IT **63382-78-5P**
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
 RN 63382-78-5 HCAPLUS
 CN Phosphorothioic acid, S,S'-[(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis(methylene)] O,O,O',O'-tetra-butyl ester (9CI) (CA INDEX NAME)



=> FILE HCAOLD

FILE 'HCAOLD' ENTERED AT 10:20:47 ON 24 MAY 2002

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS)

PRE-1967 CHEMICAL ABSTRACTS FILE WITH HOUR-BASED PRICING

FILE COVERS 1907-1966

FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

=> S L8

L11

O L8
